

CreativeCulture: Can Teachers be Game Designers?

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Abstract: Games, which are more readily blended with existing educational techniques and practices, are more likely to be accepted by teachers as useful resources. Hence, it is worth ensuring the design of game-based learning resources might support such blending, which can range from pragmatic considerations, such as how well an intended play session fits within a teaching schedule or homework arrangement, to pedagogical designs, which seek to address shortcomings in didactic instruction. To promote the sense of ownership and autonomy to break the barriers of adoption, not only that teachers should be part of the development process but they should also be empowered to create or co-create their games - removing the barriers to the development of game-based learning resources. In the CreativeCulture initiative, a project funded by the Newton Fund, teachers are empowered to create their games towards engaging learners with educational contents. Game making can be used to foster the development of transversal skills, such as 21st-century skills, where individuals can design and construct their games, often working in teams, allowing them to engage in a task that involves, and at the same time, fosters collaboration, problem solving and creativity. This case study extends the game design thinking process in proposing a solution for teachers in co-creating and developing their educational games. This process is examined through a study involving 43 teachers over two academic semesters. A total of eighteen game-based learning resources have been developed through the initiative, which has been tested in seven local primary schools in rural and semi-rural areas in Malaysia. This paper reflects on the lessons learnt and observations, which may provide insights on how game-based learning can remove barriers to the process of innovating the way we teach and learn.

Keywords: co-creativity, playful learning, game-based learning, game design, higher education

1. Introduction

As learning invariably becomes more flexible, motivated by the pedagogical shifts from traditional classroom teaching to more hands-on activities, teachers are regularly required to review and redesign their practices, and often encouraged to implement new solutions as part of their delivery. These new solutions extend to the potential of gameful and playful techniques in teaching that may require the use of digital or non-digital games. However, these often do not come with support or training that could increase teachers' confidence (Blackwell et al., 2016; Blumberg et al., 2019). Hainey et al. (2011) suggest that games, when used with sufficient support, were proven to be motivational that aided high level or complex skills construction.

To embed game-based learning (GBL) in their teaching entirely, initial buy-in from teachers is usually constrained by practical and institutional constraints, such as the perceived lack of materials (assuming that GBL is a mostly digital) and the need to optimise their time by keeping close to the standardised curriculum (Mohamad et al., 2018). GBL solutions are more likely to be accepted by teachers as useful resources if they are more readily blended with existing educational techniques and practices (Tsai et al., 2009). The 'blending' of practices can include pragmatic considerations, such as how well an intended play session fits within a teaching practice and perhaps address didactic shortcomings.

Knowledge about content, pedagogy and technology is variably present in teachers today. The increasing need to include technology in instructional delivery could be augmented with game-based learning (GBL). Teachers need to be on-boarded into the mind-set, where creating own GBL solutions could address the challenges associated with the 'consumer' model that GBL is often promoted. Not only that play and games provide an environment and context that could enact pedagogical innovation through playful interaction and exploration, knowledge and skills constructions; they can also be an instrument for further deepening the meaning and value for its application in an educational setting by educators through the creation and use and testing of games.